

the



Record

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U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

September 15, 1971
Vol. XXIII, No. 19

NATIONAL INSTITUTES OF HEALTH

Dr. Joe R. Held Named Acting Director, DRS

Dr. Joe R. Held, chief of the Laboratory Aids Branch, Division of Research Services, has been named DRS Acting Director.

Dr. Held will continue to serve as chief of the LAB, where for the past 2 years he has administered a program that includes production of genetically characterized rodents and rabbits; quarantine and conditioning of dogs, cats, and primates, and administration of the NIH Animal Center at Poolesville.

A new Animal Disease Investigation Service and programs for primate breeding have also been instituted under his direction.

Dr. Held received his B.S. and D.V.M. degrees from the University of California at Davis, and his M.P.H. degree from Tulane University.

Dr. Held was named to the interim assignment while a Search Committee, chaired by Dr. John F. Sherman, NIH Deputy Director, looks for a successor to Dr. William B. DeWitt, who died suddenly on Aug. 8.



Dr. Held

Dr. Huber Outlines Role Of HEW in Supporting Neurological Research

Applying space age technology to the diagnosis, treatment, and rehabilitation of the neurologically handicapped was emphasized at the Conference on Technology and the Neurologically Handicapped, held on Sept. 8 to 10 at Moffett Field, Calif.

Two National Institute of Neurological Diseases and Stroke scientists spoke at the meeting and several of the papers presented there were done under contract to NINDS.

The conference, sponsored by the National Aeronautics and Space Administration and the United Cerebral Palsy Research Foundation, was attended by scientists, physicians and engineers representing Federal and state governments, research institutions, and industry.

Dr. Warren V. Huber, associate director for Collaborative and Field Research, NINDS, outlined HEW's role in research and program planning related to the neurologically handicapped.

He described its support in visual impairment; speech and hearing disabilities; motor disorders due to cerebral palsy, stroke,

(See HEW ROLE, Page 8)

Researchers at Symposium on Hepatoma In Uganda, Africa, Discuss Drug Therapy

Because hepatoma—primary liver cancer—is the most common form of cancer among men in Uganda, Africa, investigators in that country carry on intensive research of the malady.

Hepatoma, in Uganda, affects three times as many men as women; the peak age is 30 to 40 years. Approximately 75 percent of hepatoma patients have had cirrhosis, a degenerative liver disease, prior to or concomitant with liver cancer.

Recently, an international symposium on liver cancer was held in Kampala. The meeting was sponsored by the National Cancer Institute and the International Agency for Research on Cancer. It was under the auspices of the Uganda Ministry of Health and the Uganda Cancer Institute.

It was attended by NIH scientists including Dr. Thomas C.

Chalmers, Clinical Center Director, and other investigators from the U.S. and several foreign countries.

The Solid Tumor Center of the Uganda Cancer Institute has been investigating hepatoma for several years under a contract between NCI and Makerere University College in Kampala. Dr. Paul Carbone, chief of NCI's Medicine Branch, is project officer.

At the symposium, Dr. Gregory T. O'Connor, head of NCI's Surgical Pathology Section, reported

(See HEPATOMA THERAPY, Page 6)

Investigators at MARU Evaluate Effect Of New Vaccine for Equine Encephalitis

While public health and agricultural officials in the southwestern United States are keeping a watchful eye on the Venezuelan equine encephalitis epidemic in Texas and Mexico, National Institute of Allergy and Infectious Diseases scientists at the Middle America Research Unit in Panama are continuing their study of the cause and prevention of this mosquito-borne disease.

They are collaborating with scientists at the Gorgas Memorial Institute and the Panamanian Department of Agriculture.

VEE—a viral infection of the central nervous system of horses and a milder, influenza-like disease in man—is transmitted by mosquitoes. The source of the mosquito infection is generally horses and rodents.

In Central and South America this disease occurs in two forms—endemic and epidemic. The endemic form is found in the wet lowlands and coastal areas while explosive epidemics occur in dry areas in central and northern South America.

(See VACCINE, Page 7)

Dr. Everett D. Wilson Heads NICHD Branch

Dr. Everett D. Wilson, a reproductive physiologist, has been named chief of the Population and Reproduction Grants Branch, National Institute of Child Health and Human Development. The Branch is part of the Center for Population Research.

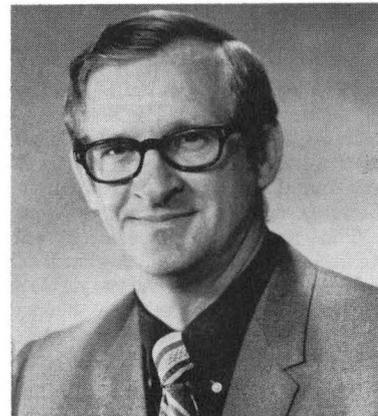
In 1965, at the age of 36, Dr. Wilson became one of the youngest college deans in the Nation when he was appointed the first dean of the Sam Houston State University School of Science.

Receives Teaching Award

The year before, he received the Distinguished Teacher Award while teaching at the university.

Dr. Wilson received his Ph.D. in Endocrinology in 1960 from Purdue University, and soon after was awarded a postdoctoral fellowship, through national competition, to Cambridge University. There, he worked with the eminent physiologists, Drs. C. R. Austin and A. S. Parkes.

In 1966, the Governor of Texas appointed him to the State Board of Examiners in the Basic Sciences.



Dr. Wilson worked with eminent reproductive physiologists at Cambridge University soon after receiving his Ph.D. degree from Purdue University.

Dr. Whedon Will Serve On Council of Trustees Of U. of Rochester

Dr. G. Donald Whedon, Director of the National Institute of Arthritis and Metabolic Diseases, has been named to the University of Rochester's Trustees Council.

Dr. Whedon was one of 13 members elected to the Medical Alumni Council this past June, and the Council appointed him as its representative to the seven-member Alumni Council, automatically placing him on the Trustees Council.

In 1941 Dr. Whedon received his M.D. degree from the University of Rochester School of Medicine and Dentistry, where he was subsequently assistant in Medicine from 1942 to 1944.

At this year's June commencement, he was awarded the University's Alumni Citation, the highest alumni award given.

Next month Dr. Whedon will deliver the annual Alumni Lecture of the University's Medical Alumni Association.

the NIH Record

Published biweekly at Bethesda, Md., by the Publications and Reports Branch, Office of Information, for the information of employees of the National Institutes of Health, Department of Health, Education, and Welfare, and circulated by request to interested writers and to investigators in the field of biomedical and related research. The content is reprintable without permission. Pictures are available on request.

The NIH Record reserves the right to make corrections, changes or deletions in submitted copy in conformity with the policies of the paper and the Department of Health, Education, and Welfare.

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Dental Research Series Shown on 5 TV Stations

"Portal of Life," the story of dental research, produced by the Information Office of the National Institute of Dental Research and NBC, is being shown on the Westinghouse Broadcasting Company's five television stations.

The five-part, 30-minute color TV series is broadcast in metropolitan areas across the country. Dr. Seymour J. Kreshover, NIDR Director, hosts each program.



Christine P. Donnelly, technical editor in the NICHD Information Office, receives two Employee Suggestion Awards from George Russell, NICHD executive officer and suggestion coordinator, for improving a filing system for recording and identifying grantee publications and for redesigning a publication clearance form.

NIH Television, Radio Program Schedule

Radio

DISCUSSION: NIH

WGMS, AM-570—FM Stereo
103.5—Friday, about 9:15 p.m.

September 17

Catherine S. Delea
Endocrinology Branch,
NHLI
Subject: Hypertension

September 24

Dr. George E. Garrington,
Clinical Director, NIDR
Subject: Dental Clinical
Research

Interview is during intermission, Library of Congress Concerts.

There's not much satisfaction in working on a top-secret study if nobody knows about it.—*Changing Times*.

Volunteers Needed! Two NHLI Branches Initiate Cholesterol Level Study

Volunteers are needed to take part in a cooperative clinical study initiated by the Cardiology and Molecular Disease Branches of the National Heart and Lung Institute.

The study is to determine whether reducing the elevated blood cholesterol levels of patients with Type II hyperlipoproteinemia lessens their risk of coronary artery disease or alters the course of heart disease in patients.

Type II hyperlipoproteinemia is a very common lipid-transport disorder. It is associated with premature heart attacks and heart disease (atherosclerosis).

Patients Examined

Patients enrolled in the study will receive a complete examination for heart and lipid disease.

In order to be considered for the study the following criteria has been established:

- An age limit of 21-55 years.
- A fasting cholesterol level greater than 260 mg.

- The expectation of residing in the metropolitan Washington, D.C. area for at least 2 years or more.

- Employees with endocrine disease (including diabetes mellitus), hypertension, congestive heart failure, or those who have had a heart attack in the last 6 months are not eligible.

Employees with an elevated cholesterol who are interested in enrolling in the study are asked to contact the Employee Health Service, Clinical Center.

The Health Service will also perform cholesterol tests for personnel from 8:30 to 9 a.m., Monday through Friday. Appointments are

GWU To Assess Impact Of Chromosomal Defects In Human Visual Systems

Scientists at George Washington University will assess the impact of chromosomal defects on the development of the human eye in a study funded by the National Eye Institute.

A one-year contract awarded to GWU will permit the evaluation of developmental defects in the visual system.

Defects More Frequent

Past studies have demonstrated that defects in chromosomes appear more frequently in aborted embryos (30 percent) than in newborn babies (8 percent). An optimum investigation of eye defects calls for the availability of fetal material.

Approximately 150 human embryos having a variety of chromosomal abnormalities, and showing the effects of mutagenic agents, will be examined.

The study will allow NEI to complement and extend its research in this area which has been hampered by lack of human material.

Jacobson Heads Project

Chief investigator for the project will be Dr. Cecil B. Jacobson, assistant professor and chief, Reproductive Genetics Unit, GWU Medical Center.

Dr. Jacobson has conducted research in cytogenetics since 1960. Embryonic eyes are available from specimens accumulated during a series of three abortal studies and other investigations conducted within collaborating laboratories.

unnecessary. Fasting 12 to 16 hours prior to testing is essential.

Personnel with elevated cholesterol, and who meet the other requirements, will be referred to the study.

Bowling League Begins Season

The mixed duckpin league, sponsored by the NIH R & W Association, will begin its official season next Thursday, Sept. 23, at 6:45 p.m. at the Silver Spring Bowling Alley.

The new bowling league held its first planning meeting in Silver Spring last Thursday.

Substitute bowlers are needed.

Tennis Club to Meet Tomorrow

The NIH Tennis Club will hold a general membership meeting tomorrow (Thursday, Sept. 16) at 12 noon in the CC Jack Masur Auditorium. The club's new constitution will be ratified.



Dr. R. W. Lamont-Havers (l), NIH Associate Director for Extramural Research and Training, spoke at a recent Equal Employment Opportunity Awards Ceremony honoring two DRG employees—J. Leonard Hooper (second from left) and Everlyne K. Murdock—who were cited for their leadership and personal involvement in bringing about change within the Division. Dr. Stephen P. Hatchett, DRG Director, presented the awards at the first such ceremony at NIH. Dr. Colvin Gibson, NIH EEO Officer, took part in the ceremony and praised DRG as a forerunner in the training area.

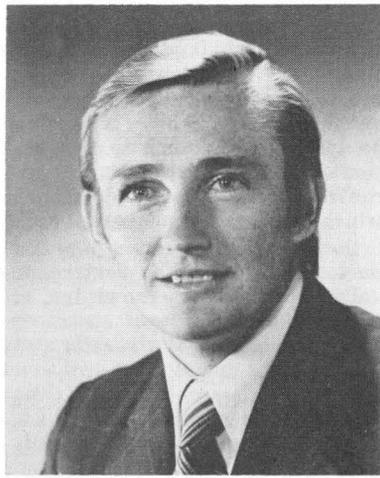
Majority of NIEHS Unit Elects Local in Employee Fed. as Representative

Local 2923, American Federation of Government Employees, AFL-CIO, was certified on Aug. 13 as the exclusive representative for a unit of general schedule and wage grade employees at the National Institute of Environmental Health Sciences, Research Triangle Park, N.C.

The local was selected by a majority of the employees in a recent secret ballot election.

Exclusive recognition gives the local the right to act for and to negotiate an agreement covering all employees in the unit without discrimination and without regard to labor organization membership.

The local may also be represented at formal discussions between management and employees or their representatives concerning grievances, personnel policies and practices, or other matters affecting unit personnel.



Leo F. Buscher, Jr. has been named chief of the Grants Administration Branch, Extramural Activities, National Cancer Institute. Mr. Buscher, acting head of the Grants Operation Management Section for the past 9 months, came to NCI in 1963.

NIH Orchestra Begins 13th Season Sept. 27; Instrumentalists Needed

The NIH Orchestra, sponsored by the R&W Association, will begin its 13th season on Monday, Sept. 27, at 8 p.m. in the CC Jack Masur Auditorium. Rehearsals will be held every Monday evening thereafter.

The new conductor, John Gerschefski, is a graduate of the Julliard School of Music. A violinist and teacher, he composed and arranged music while with the Marine Band.

NIH employees and members of their families are invited to join the orchestra; experience in playing classical music is desirable.

Dr. Parpia, Scientist From India, Honored For Developing Protein 'Miltone'



Dr. Parpia (r) and Dr. Benjamin T. Burton, NIAMD associate director, Office of Program, and project officer for the CFTRI, discuss the protein-rich nutritional value of Miltone. Dr. Parpia received his doctorate from Oregon State University. He is Director of FAO's International Food Technology Training Center for Southeast Asia.

A high protein "milk-expander" called Miltone, which could double the scarce milk supply for the children of India, has earned honors for its developer, Dr. H. A. B. Parpia, a National Institute of Arthritis and Metabolic Diseases grantee.

Dr. Parpia is Director of the Central Food Technological Research Institute, Mysore, India.

At its annual meeting in May, the Institute of Food Technologists, the international professional society of food scientists, presented the Industrial Achievement Award, a bronze plaque, to Dr. Parpia.

The Institute cited Miltone as "an example of a creative solution to a vital problem that food technologists throughout the world are looking for."

Earlier, India's Prime Minister Indira Gandhi wrote Dr. Parpia: "That the award should have been given for an R & D effort which has resulted in the production of an indigenous substitute for imported milk powder, within the reach of the low income groups, makes it particularly credit-worthy."

The Prime Minister asked him to "convey congratulations, on my behalf, and on behalf of the nation, to the scientists who were involved in developing 'Miltone.'"

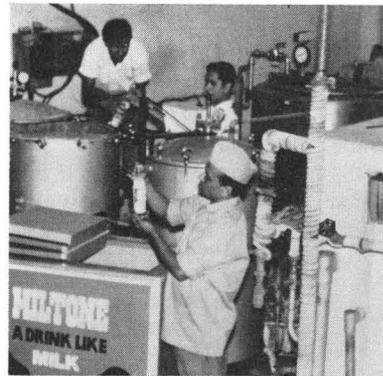
The CFTRI has started commercial production of Miltone in two local cities and it is expected that other countries will soon begin production.

This project is part of NIAMD's nutrition research program in developing countries.

Players of string instruments, bassoon, and French horn are particularly welcome.

Instrumentalists should bring a music stand to each rehearsal and show current R&W membership cards at the first meeting.

For further information, call Dr. John B. Wolff, manager, Ext. 67070.



Miltone, a combination of pure peanut protein and hydrolyzed starch syrups blended with bovine or buffalo milk, is pasteurized and bottled in this factory. The peanut protein is extracted by a process developed at CFTRI. Miltone is distributed to markets and welfare centers for low income children. It may be used in tea and as an ingredient in cottage cheese.

'Dr. Dial' Disseminates Dental Health Advice

The Central Wyoming Dental Society recently sponsored a 6-week project in Casper, utilizing the telephone to dispense information on periodontal disease via "Dr. Dial," a fictitious character with a fund of dental knowledge.

The Division of Dental Health, BHME, provided technical assistance to the project.

Suggestions, such as evaluating oral hygienic practice and visiting one's dentist were given by Dr. Dial.

It was estimated that 33,394 calls were received and 14 percent of the patients who went to the dentist were there because of Dr. Dial's suggestion.

Distinguished Researcher From Japan Conducts Genetics Studies Here

Dr. Jun-ichi Tomizawa, a Distinguished Visiting Scientist at NIH, is conducting research on the molecular basis of microbial genetics in the National Institute of Arthritis and Metabolic Diseases.

Dr. Tomizawa, professor of Biology at Osaka University, in Japan, is in NIAMD's Laboratory of Molecular Biology.

Research Explained

He is known for his work on the mechanisms of recombination and replication of DNA of bacteria and bacteriophage, and those of transduction, lysogeny, and repair of radiation damage.

Before joining Osaka University, Dr. Tomizawa was head of the Department of Chemistry at the National Institute of Health of Japan.

The prestigious investigator also served as a research associate in the Department of Genetics at Carnegie Institution and in the Department of Biology at the Massachusetts Institute of Technology.

Before returning to the National Institute of Health, he was a visiting professor at the University of Oregon's Institute of Molecular Biology.

Joins NIH Of Japan

Dr. Tomizawa received his Ph.D. degree from the University of Tokyo, and then joined the research staff of the NIH of Japan.

Dr. Tomizawa has received many honors including the Japanese Genetic Society Award. He is an honorary member of the Society of American Biological Chemists and the American Academy of Arts and Sciences.



Dr. Tomizawa joined the research staff of the NIH of Japan after receiving his Ph.D. degree from the University of Tokyo.

Come Up to the Bicycle Generation; Experience a 'Revolution' on Wheels



With the serene and rolling hills of Frederick in the background, Donna finishes the long climb up her grandparents' driveway.

Story and Photos by Ed Driscoll

What's a better way to get sore hands and sore legs than to ride a bicycle for umpteen miles? "It has its drawbacks, but cycling can be a lot of fun," says blond, blue-eyed Donna Hargett, a college recruiter for NIH.

Bicycling has become the number one outdoor sport with an estimated 60 million participants in the United States—up 105 percent in the last decade according to the Department of Interior.

With the emphasis on health today, these Americans have gotten off their seats onto the seat of a bicycle.

Many doctors feel the exercise will reduce heart disease, improve



Donna reads a book while "riding" her exerciser to keep in shape.

physical condition, and work off tensions.

Donna has been cycling over 3 years. "One day, my whole family decided to take a ride. We traveled about 5 miles, mostly uphill, and discovered we were in terrible shape.

"Since then, we have all purchased bikes. My folks ride every day in Frederick. I ride on weekends when I go home," she said.

Donna bought an indoor training bike to keep in shape. "The trainer sits off the floor, has one wheel, and keeps mileage. I usually watch TV or read a book while on it," she explained.

Recently she participated in the annual Flamingo Century Run in Homestead—a 100-mile one-day ride across the Florida Everglades.

This was the family's first attempt at such a long ride. They all completed the run and each received a chevron for finishing.

The Century Run is not a race, the people compete against themselves. Everyone who finishes the 100-mile ordeal is a winner.

Two Areas of Concern

"There are only two tender spots in a long ride—the palms of the hands and the seat of the pants," Donna said.

"You can wear gloves to protect your hands, but there isn't too much you can do about your bottom."

Donna is a member of the League of American Wheelmen and the Potomac Pedalers—a Washington-based cycling club.

She plans to ride with her family in the Hilly Hundred. The ride, a strenuous 100 miles up and down hills, will be held in Indiana this October.

Donna owns a Raleigh Professional, a 10-speed (gear) bicycle that weighs 22 pounds. She named it "Wipeout" in memory of two incidents in which she was "slightly" bruised.

Her advice to beginning cyclists is "to take it easy at first if they haven't exercised regularly for a

New Organization Forms For Scientists Interested In Biomaterial Research

A group of scientists, engineers, and physicians have formed the Washington Biomaterials Group, an organization to stimulate communication among people interested in synthetic material inserted into the human body.

Meetings will take place on the third Monday of each month.

Investigators will hear discussions by distinguished speakers on such topics as synthetic heart valves and blood vessels, artificial bone joints, teeth restoratives, artificial kidneys, and prosthesis.

The first meeting will be on Monday, Oct. 18, at 6 p.m. at the G.W.U. Faculty Club.

Following dinner, Dr. William Roberts, Cardiology Branch, NHLI, will discuss his research concerned with autopsies on patients who have had cardiac implants.

NIH members of the WBG Steering Committee are: Dr. Ruth J. Hegyeli, NHLI, Dr. Charles McCutcheon, Dr. Joseph E. Rall, Dr. Leon Sokoloff, all of NIAMD; Dr. Lawrence R. Rose, NIGMS, and Dr. Vernon Wong, NEI.

Scientists interested in the biomaterials field are invited to the meetings. There are no dues.

Anyone interested in being added to the mailing list should contact Dr. Robert Stromberg at the National Bureau of Standards, (301) 424-2000.

long time. There isn't anything hard about cycling, however, too much at one time could be dangerous."

As a college recruiter for NIH, Donna travels to universities and interviews students.

She also coordinates the Cooperative Work-Study Program, which enables college students to work for NIH in career-oriented employment.



Donna (l) pauses with her parents, Mr. and Mrs. Richard Hargett, and her brother Rick, to discuss the route they will take next.

Three Centers Receive 5-Year NICHD Grants

Population Research Centers in Tennessee, New York, and Texas have been awarded 5-year grants from the National Institute of Child Health and Human Development to speed progress in research on population problems.

The first awards, made under a new program of the Center for Population Research, NICHD, provide nearly \$4 million to universities and nonprofit institutions able to conduct biomedical and/or behavioral research and research training on population issues.

The initial Population Research Center Awards have been made to the Vanderbilt University School of Medicine, the Population Council of New York, and the University of Texas, Austin.

Programs to Clarify

The centers' biomedical research programs will attempt to clarify the processes of reproduction; from this knowledge new contraceptive techniques may be developed.

In addition to basic biological research, studies are under way at two centers on implanting contraceptive devices below the skin, improving intrauterine devices, developing drugs which will make an individual immune to fertilization for specified intervals, and controlling hormones and enzymes which regulate the menstrual cycle.

Social science research, to be conducted by two of the centers, involves the study of knowledge, attitudes, and practice of contraception; population growth estimates; relationships among birth rates and selected socio-economic variables; and development of population models to ascertain paths to population stability.

Under the PRCA program, funds are also available for developing new research programs and recruiting professionals to complement work under way in each center.

Dr. Zubrod Discusses Advances in Cancer Chemotherapy Through Intensive Research

Chemotherapy has advanced to the point where certain drugs may now be able to cure some forms of cancer. "Cure" in this context means that life expectancy is prolonged to such an extent that it approaches that of similar individuals in the general population.

This achievement was discussed today (Sept. 15) by Dr. C. Gordon Zubrod, National Cancer Institute, at the 162nd annual meeting of the American Chemical Society.

37 Drugs Helpful

Dr. Zubrod, who is scientific director for Chemotherapy, explained that because of research there are 37 drugs that can destroy cancer cells in patients, resulting in freedom from disease for prolonged periods.

Cancers that may be cured by drugs are for the most part those that grow rapidly and include choriocarcinoma, an unusual type of cancer of the placenta; Burkitt's lymphoma, a rare form of cancer of the lymph system, which develops primarily in African children, and embryonal testicular tumor.

Survival Lengthened

Also, in a small fraction of cases, drug therapy has resulted in long term survivals in acute lymphocytic leukemia, a cancer of the blood-forming tissues, which takes the lives of more American children than any other disease.

Evidence indicates that several other forms of cancer may also be in the same category after-treatment by chemotherapy or radiation.

These include three types of advanced cancers of the lymph system—Hodgkin's disease, lymphosarcoma, and reticulum cell sarcoma; Wilms' tumor, a cancer of the kidney that occurs in early

childhood, and Ewing's sarcoma, a type of bone cancer that primarily affects young adults.

Chemotherapy advances have resulted from intensive research with laboratory animals that predicts the response of patients to drugs, Dr. Zubrod pointed out.

The most important of these laboratory animals, or animal models, is an inbred strain of mouse with leukemia, called leukemia L-1210.

This model has been useful for identifying active drugs, determining optimum schedules of drug administration, and developing combinations of drugs effective against fast-growing cancers.

Investigators are now searching for an animal model for slowly-growing cancers that will serve as a valid indicator of drugs useful against such types in man.

These include cancers of the lung, breast, and large intestine, which together cause over 130,000 deaths each year in the United States alone.

Volunteers Seek Stamps To Donate to Veterans For Collecting Hobby

A volunteer organization, Stamps for the Wounded, is requesting NIH employees to send stamps to them for distribution to hospitalized veterans.

The philatelists try to combat boredom by interesting the veterans in stamp-collecting. Volunteers pack the stamps for mailing and distribute them to stamp clubs in numerous VA hospitals.

SFTW wants all used or unused domestic and foreign stamps (except the common U.S. 1, 2, 3, 4, 5, 6, and 8-cent issues).

They need commemorative and revenue stamps, envelopes with special postmarks, first-day covers, first air-mail flights, and similar stamps.

Stamp donations may be sent to Herman L. Neugass, National Vice Chairman of SFTW, 2801 New Mexico Ave., N.W., Apt. 1209, Washington, D.C. 20007.

DN Reports 723,000 RN's Are Now Practicing in U.S.

Registered nurses now practicing in the U.S. number 723,000 as compared with 700,000 in 1970, according to the Division of Nursing, BHME.

The Interagency Conference on Nursing Statistics reports there are now 353 RN's per 100,000 people.



Fifteen employees of NHI's Extramural Research and Training Programs share a \$1,000 group award for outstanding work preparatory to launching the Institute's Specialized Centers of Research (SCOR) Program. Seated, l to r; Louretta B. Doherty, Brenda R. Smith, Zulienne F. Moyer, and Karen L. Powell. Standing, l to r; Brenda R. Andrews, Jon F. Carow, George McDonald, Charleen F. Briscoe, Barbara A. Jordan, Frank J. Mills, and Donna C. Tetter. Not present: Christine M. Stuller, Anne E. Brown, Elissa L. Mirsky, and Rose Schreiber.

Dr. M. Packer Appointed Deputy Director, DDH

Dr. Merrill W. Packer has been appointed deputy director of the Division of Dental Health, BHME.

Dr. Packer will assist in the administration of Division programs to increase the supply of dental manpower, and in the prevention and control of dental diseases.



Dr. Packer

Since 1969, he has been the assistant dean for planning, development, and evaluation at the University of Kentucky College of Dentistry.

Dr. Packer received his D.D.S. (1959) and his M.S.D. (1964) degrees from the University of Minnesota College of Dentistry.

University Posts Noted

From 1964 to 1968, he was associate professor and head of the Department of Periodontics, as well as director, Division of Continuing Education at the University of Alberta College of Dentistry in Canada.

Dr. Packer has lectured and published extensively on the subjects of periodontal disease and preventive dentistry.

68 Contracts Awarded To Accelerate Research In Population Problems

To accelerate population research efforts in development of new contraceptives, to evaluate the effects of existing contraceptives, and to stimulate research on social and behavioral aspects of population problems, the National Institute of Child Health and Human Development has awarded 68 new contracts totaling \$6.1 million.

For the first time the Center for Population Research contract program in contraceptive development goes beyond basic research in reproductive biology into product-oriented study.

The contracts emphasize the development of reversible sterilization techniques for both men and women; antifertility drugs; new contraceptive devices and drug delivery systems, and continuation of fundamental research, including prostaglandin investigation.

Contracts dealing with evaluation, primarily of the oral contraceptives, focus attention on problems surrounding the use of the pill and its effects.

Study Areas Listed

Areas under study include the epidemiology of thromboembolism, the development of an early warning system for intravascular coagulation, and the metabolism, ideal dose, and unique properties of various oral contraceptives.

The behavioral sciences program will attempt to relate demographic data to fertility.

Factors affecting family size, including the economic, social, and personal elements associated with high and low birth rates, will be studied.



Dr. George J. Cosmides, NIGMS, has been invited to present the eighth annual Distinguished Lecture to the Pharmaceutical Sciences Section at the 1971 meeting of the American Association for the Advancement of Science to be held in Philadelphia, Dec. 26-31.

HEPATOMA THERAPY

(Continued from Page 1)

that electron microscopic studies of tissue from patients with liver cancer showed no distinctive ultrastructural features or evidence of virus.

Other scientists reported on studies of aflatoxin, a chemical produced by common molds that contaminate poorly stored food-stuffs. It is known to cause liver cancer in animals.

Because this contamination of food and liver cancer are common in Africa and rare in the western world, it has been suggested as a cause for the disease in humans.

Antigen Possible Agent

Dr. Baruch S. Blumberg of the Institute for Cancer Research in Philadelphia, one of the discoverers of the Australia antigen associated with viral hepatitis, suggested that antigen is a possible agent in causing hepatoma.

NCI scientist Dr. Charles L. Vogel, director of the Solid Tumor Center, also discussed the association of the Australia antigen and hepatoma in Uganda.

Dr. Robert K. McIntire, Laboratory of Cell Biology, NCI, spoke on techniques for measuring alpha fetoprotein (a-FP), a protein produced by prenatal liver.

It is also present in the blood serum of mice, monkeys and humans with hepatoma.

Dr. Harry Keiser, National Heart and Lung Institute, discussed the possibility that the enzyme proline hydroxylase (PH) may serve as a biochemical marker in monitoring the course of the disease to evaluate the effectiveness of drug therapy in hepatoma.

Age Important Factor

In talking about a-FP in 111 Ugandan patients with hepatoma, Dr. Vogel stated that age appears to be an important factor. Every patient under the age of 25 was a-FP positive, while only one patient over 60 showed evidence of a-FP in the blood.

Dr. Vogel pointed out that before a-FP can be used as a biochemical marker to evaluate therapy, serial measurements of a-FP correlated with therapy and the clinical course of the disease will have to be obtained.

Dr. C. Gordon Zubrod, NCI Scientific Director for Chemotherapy, described the general principles that govern the approaches to cancer chemotherapy.

Dr. Stephen K. Carter, chief of the NCI Cancer Therapy Evaluation Branch, described drugs that are being developed that might be evaluated in liver cancer treatment, notably methyl-CCNU and 5-azacytidine.

In a report titled "An Attempt at Rational Chemotherapy: Dichloromethotrexate," Dr. David G.



Louis Thompson, Pest Control and Consultation Section head; D. R. Cushing, GSM assistant director, and Grover T. Fletcher, Sanitation Services Branch chief (l to r), recently presented a group Special Achievement Award for sustained superior work to: Charles Hamlin, Herbert L. Bing, Clarence Bruce, Jr., Melvin P. Carter, Joseph R. Reed, Gerard A. Green, and Richard Seldon "in recognition of their skill . . . and dependability in carrying out their responsibilities for a sustained period beginning 1961 through the present."

Symposium Evaluates Antiepileptic Techniques

Scientists from all over the world met last week—Sept. 8 to 10—in Scottsdale, Ariz., to evaluate antiepileptic drugs.

The meeting, Symposium on the Pharmacology of Antiepileptic Drugs, was sponsored by the National Institute of Neurological Diseases and Stroke, the Public Health Service Advisory Committee on the Epilepsies, and the NINDS Ad Hoc Committee on Anticonvulsant Drugs.

Dr. Edward F. MacNichol, Jr., delivered the opening address.

While no new antiepileptic drugs have been developed in recent years, new information and techniques to determine proper drug dosage were reported.

A sensitive technique to monitor blood levels of antiepileptic drugs—gas liquid chromatography—has been developed, and was discussed at the conference. This method will allow more precise, individualized drug therapy.

Dr. J. Kiffin Penry, head, NINDS's Applied Neurologic Research Branch, and Dr. James J. Cereghino of the same branch, presented their findings, with Dr. Joseph T. Brock, New Castle State Hospital, on albutoin.

Other NINDS researchers at the symposium included William Weiss, Dr. Jonas H. Ellenberg, and Dr. Harvey J. Kupferberg.

A monograph, compiled from the symposium proceedings, will be released in June 1972.

Johns, head of the Drug Metabolism Section of the NCI Laboratory of Chemical Pharmacology, discussed the pharmacology of this anti-tumor drug which is undergoing clinical trial at the Uganda Cancer Institute.

Latest Participants in NIH Visiting Scientists Program Listed Here

8/20—Dr. Eliezer Huberman, Israel, Biology Branch. Sponsor: Dr. Joseph A. DiPaolo, NCI, Bldg. 37, Rm. 2A13.

8/22 — Dr. Farouk Karoum, United Kingdom, Laboratory of Preclinical Pharmacology. Sponsor: Dr. Erminio Costa, NIMH, St. Elizabeths Hospital.

8/23—Dr. Michael Paran, Israel, Human Tumor Cell Biology Branch. Sponsor: Dr. Robert C. Gallo, NCI, Bldg. 10, Rm. 6B18.

8/29—Dr. Yoshimasa Sakakibara, Japan, Laboratory of Molecular Biology. Sponsor: Dr. David R. Davies, NIAMD, Bldg. 2, Rm. 316.

8/29—Dr. Zsuzsa Schaff, Hungary, Virus Studies Section. Sponsor: Dr. Ursula I. Heine, NCI, Bldg. 37, Rm. 1C17.

8/30—Dr. Mordechai Aboud, Israel, Laboratory of Molecular Biology. Sponsor: Dr. Ira Pastan, NCI, Bldg. 10, Rm. 10B09.

9/1—Dr. Eitan Rotlevi, Israel, Laboratory of Physiology. Sponsor: Dr. Peter Riesz, NCI, Bldg. 10, Rm. B1B50.

9/1—Dr. Toshihide Sato, Japan, Section on Morphology. Sponsor: Dr. Dorothy F. Travis, NICHD, Gerontology Research Center, Baltimore, Md.

9/1—Dr. Thomas Y. Shih, Taiwan, Laboratory of Biology of Viruses. Sponsor: Dr. Norman P. Salzman, NIAID, Bldg. 5, Rm. 324.

9/1—Dr. Vishwa M. Srivastava, India, Laboratory of Experimental Pathology. Sponsor: Dr. Leon Sokoloff, NIAMD, Bldg. 10, Rm. 3N114.

9/1—Dr. Tomiko Tanaka, Japan, Cellular Immunity Section. Sponsor: Dr. Berton Zbar, NCI, Bldg. 37, Rm. 2B09.

9/1—Dr. Haruhiko Yagi, Japan,

Italy Hosts Symposium On Leukemia Research

The Vth International Symposium on Comparative Leukemia Research is being held this week (Sept. 13-17) in Padua and Venice, Italy.

It will be principally co-sponsored by the Special Virus Cancer Program of the National Cancer Institute, and the Leukemia Society of America, Inc.

Sponsors Listed

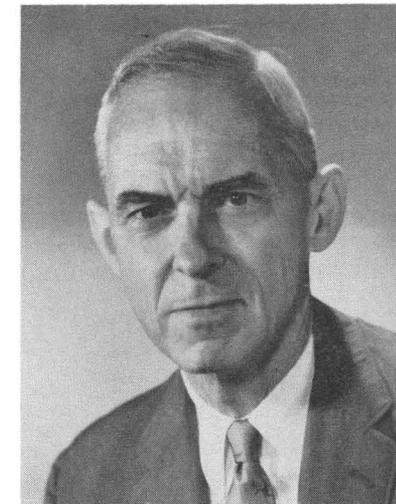
Italian agencies sponsoring the meeting include the Ministry of Education, Ministry of Health, National Research Council, and the Italian Leukemia Society.

The symposium is under the direction of Dr. Luigi Chiecchi-Bianchi of the Istituto di Anatomia E Istologia Patologica, Universita Degli Studi-Padova.

Two NCI scientists, Drs. Timothy O'Connor and John B. Moloney, are chairing two of the sessions.

The Special Virus Cancer Program was established in 1964 with a special appropriation from Congress to support an intensified virus-leukemia research program.

Subsequently, an overall program was enlarged to include research on various types of cancer. It coordinated research to determine if viruses are causative agents of human cancer and, if so, to develop effective means of prevention or control.



Dr. David W. Alling, special assistant, Biomedical Research, NIAID, was recently elected an American Statistical Association fellow. He was cited for "his extensive contributions to the theory and application of statistical methodology in medical research."

Laboratory of Chemistry. Sponsor: Dr. Bernhard Witkop, NIAMD, Bldg. 4, Rm. 330.

9/1—Dr. Shigetada Nakanishi, Japan, Laboratory of Molecular Biology. Sponsor: Dr. Ira Pastan, NCI, Bldg. 10, Rm. 10B09.

Biocompatibility Study Yields New Information On Prosthetic Materials

Divergent approaches to the development of blood- and tissue-compatible materials have yielded new information about factors that affect the biocompatibility of prosthetic materials. The research has led to development and combination of several substances that may fulfill stringent biocompatibility requirements.

These studies and the advances they have produced were reported to the XXIII International Congress of Pure and Applied Chemistry in Boston, by Dr. Stephen D. Bruck, of the National Heart and Lung Institute's Medical Devices Application Program.

The report gives a critical analysis of problems of biocompatible materials development and testing, as well as reviews of reports from



Dr. Bruck presented the biocompatibility report to the XXIII International Congress of Pure and Applied Chemistry held in Boston.

over 30 research teams working on the problems under MDAP contracts.

The lack of biocompatible materials is a critical problem in the development of heart- and respiratory-assist devices and of artificial hearts for long-term use.

Substances that neither affect nor are affected by blood, other body fluids and tissues, and possess various mechanical and physico-chemical properties such as strength and elasticity are essential.

Specifically, materials useful for long-term implantation should not cause: blood clotting or thrombosis, destruction of cellular elements of the blood, denaturation of plasma proteins, enzyme destruction, depletion of electrolytes, immune responses, damage to adjacent tissue, cancer, and toxic and allergic reactions.

In addition, the materials should retain physical, chemical, and mechanical properties and surface characteristics during sterilization as well as during years of exposure

Big Toe Subject to Freeze Novel Cold Cure Proposed

Cryobiologists and refrigeration experts last week met in Washington's heat to hear scientists suggest putting the cold on ice.

At a 5-day meeting held at the Washington Hilton and Sheraton Park Hotel, cryobiologists joined with refrigeration experts in 80 degree temperatures to discuss frozen foods, bodies, and the common cold.

A novel cure for the common cold—freezing the underside of one big toe—was proposed by two foreign scientists.

A source in the National Institute of Allergy and Infectious Diseases, which currently is supporting research on rhinoviruses and the common cold, observed that the most obvious hazard of the procedure would be a cold "burn" on the big toe and acute frostbite in July.

to the biological environment.

In attempts to fulfill requirements, NHLI contract-supported studies administered by MDAP led to the synthesis and investigation of materials of five types: synthetic materials, such as silicone rubber and other polymers, and pyrolytic carbons; additive-containing materials, such as those containing anticoagulants and other surface-active agents.

Also, gelatinous substances known as hydrogels; microfibrillar structures seeded by living cells or coated with the proteinaceous substance, fibrin, and composite materials incorporating two or more of the above.

Because of the complexity of the problem, it is likely that only a composite material will meet all biocompatible requirements.



Dr. Joseph Leiter, NLM associate director for Library Operations, and Carol Long, employee development specialist, congratulate the four associates who recently completed a one-year training program as biomedical librarians. (L to r): Dr. Leiter, Jane S. Young, Daniel T. Richards, Dorothy Moore, Thomas D. Tonkery, and Miss Long.

VACCINE

(Continued from Page 1)

MARU scientists are approaching their study of the differences and relationships between these two types in several ways.

Upon investigating the capabilities of *Culex aikenii*, *Deinocerites pseudis*, and *Mansonia* mosquitoes to transmit the two strains of VEE virus — endemic and epidemic—they learned that *D. pseudis* was probably involved in the 1970 VEE outbreak in Costa Rica.

NIAID grantees at the Gorgas Institute also implicated *C. aikenii* as the principal vector of the endemic VEE virus in Panama.

They have also found that the strain of virus causing the epidemic form produces significantly more viremia (the presence of viruses in the blood) and more cases of encephalitis in horses.

Now, they are studying the possibility that one strain can change to the other and that one form will protect against infections of the other type.

Their research has demonstrated the effectiveness of an attenuated VEE vaccine, made from a strain known as TC-83.

In a trial in Costa Rica, horse deaths in one location stopped 8 days after healthy animals were vaccinated. MARU scientists believed the vaccine successful enough to suggest its use against the epidemic in Mexico and Texas.

Other findings that have come from the 1970 Costa Rican study so far are: deaths of horses from the disease were unrelated to sex or age of the animals, and human infection ceased shortly after equine infection was brought under control by vaccination.

Future work by the scientists will be directed toward detailing the pathogenesis of VEE and the development of a live vaccine, as well as further evaluation of the present attenuated vaccine.

CRISP System at DRG, Scientific Index Facility, Gives Answers Quickly

The inquirer wants to know:

How many current grants relate to trauma and injury research?

How many current NIH projects involve the use of crystallography?

What is the NIH fiscal year 1970 grant support of sickle cell anemia? Breast cancer?

Who are the investigators studying viral hazards in water?

CRISP (Computer Retrieval of Information on Scientific Projects) might have the answer.

A comparatively new and greatly expanded scientific indexing system, CRISP contains more than 160,000 items relating to the scientific aspects of research projects supported by NIH and other components of the PHS.

CRISP Links With IMPAC

In addition, CRISP, through a link with "IMPAC," has pertinent fiscal and grant identification data concerning names and addresses of investigators, project titles, amounts awarded, and classification codes.

CRISP is a multifile system which uses disk storage for direct access in file maintenance and reporting purposes.

A query facility in the system provides a fast method for extracting grant information in several optional formats.

Queries may be formulated to retrieve all terms associated with specific projects, or all grants pertinent to a single scientific category, or combination of categories—up to 500—using traditional Boolean language, named after George Boole, a 19th century mathematician.

CRISP was devised and is operated by the Research Documentation Section, Statistics and Analysis Branch, Division of Research Grants.

For further information, call DRG, Ext. 65743.

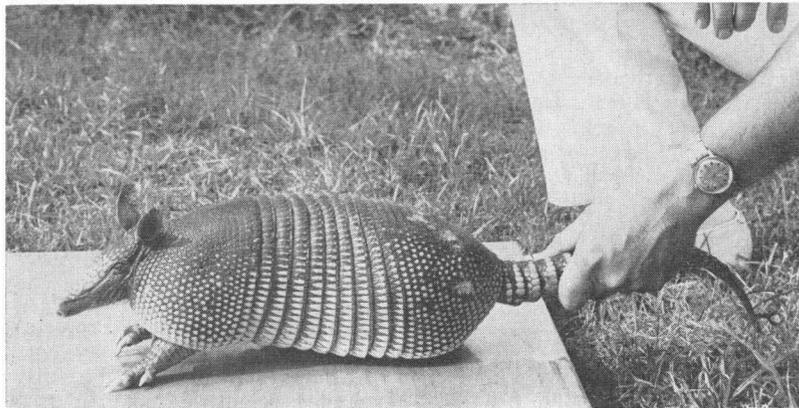
Emily Hahn Given Award For Primate Reporting

The 1971 National Media Award for reporting has been given to Emily Hahn for her writing on primate research titled *On The Side of The Apes*. It was awarded by the American Psychological Foundation, a part of the American Psychological Association.

The book—originally a two-part magazine article — deals mainly with the Regional Primate Centers program which is administered by the Division of Research Resources.

Miss Hahn was cited for "a high level of technical competence . . . to transmit a complex subject to a general audience."

Odd-Shaped Armadillos Heralded as Ideal For Leprosy Research, Other Studies



This 9-banded armadillo is housed at the Atchafalaya Basin Laboratory of Gulf South Research Institute, New Iberia, La. The DRR-supported colony promises to become an important animal research resource.

By Jerry Gordon

The heretofore unheralded armadillo was suddenly projected into prominence last month when a team of Louisiana scientists from the Gulf South Research Institute in New Iberia and the Public Health Service Hospital at Carville announced that they had successfully inoculated a nine-banded armadillo with leprosy bacterium.

By supporting development of the largest colony of armadillos in the country for medical research, the Division of Research Resources played a significant role in the biomedical achievement which could lead to control or eradication of the disease which affects an estimated 15 million persons throughout the world.

Dr. Eleanor E. Storrs, Director of the Department of Biochemistry of Gulf South Research Institute, and Dr. Waldemar F. Kirchheimer, chief of the Laboratory Research Branch at the Carville Hospital, collaborated on the 2-year program to develop the armadillo as a laboratory animal for research in leprosy.

The nine-banded armadillo is encased in an armor-like plate,



At a recent news briefing on the armadillo were (l to r): Dr. Earl S. Beck, head of NIAID's Geographic Medicine Branch; Dr. Chapman Binford, Leonard Wood Memorial Hospital, and Dr. Kirchheimer. Dr. Kirchheimer, with Dr. Storrs, reported on the armadillo findings at a closed scientific meeting at NIH in late July.



Dr. Eleanor E. Storrs, Director of the Department of Biochemistry, Gulf South Research Institute, supervised the development of the armadillo colony which started in December 1968.

containing nine bands, grows to the size of a football, has a long snout, large ears, and abounds in the southwestern states.

The particular biological characteristics of the odd-shaped armadillo lends itself ideally to the health research study in many areas, according to the researchers.

The low skin and body temperature (about 90 degrees) of the animal is one of the major factors which makes the beetle-shaped animal suitable for leprosy research since the leprosy bacterium requires a low temperature for optimum growth.

The armadillo's life span is from 12 to 15 years, which gives investigators a long period to study the progressive form of the disease. In man, the leprosy incubation period averages 3 to 5 years.

Previously, scientists developed something resembling progressive

HEW ROLE

(Continued from Page 1)

head and spinal cord injury, and other nerve and muscle disorders.

Dr. Frederick Hambrecht, a researcher in the NINDS Laboratory of Neural Control, spoke on the long-range prospects of neural control, a relatively new area of brain research.

He emphasized the need for developing a safe and effective way to transfer information into and out of the nervous system.

Dr. Hambrecht pointed out that problems must first be solved, such as developing long-term implanted connections which are not harmful to the body, and finding ways to stimulate and record from only certain neurons.

There is enormous potential for innovations once these and other obstacles are overcome, according to Dr. Hambrecht.

He cited experimental work in developing prosthetic aids for the blind and deaf; deriving signals from motor areas of the brain to control artificial limbs; providing feedback information to the central nervous system from artificial limbs, and developing an inward and outward flow of information in people with spinal cord injuries or stroke by bypassing the defective areas.

leprosy in mice following removal of the thymus gland and destruction of bone marrow by X-ray. However, mice only live about 2 years, and there has been a need for an unaltered research animal with longer life expectancy.

Another unique characteristic of the armadillo is uniformity of litter—identical quadruplets. This factor makes it useful in many biomedical research areas where genetically identical individuals may be treated and observed.

The initial DRR grant, effective Dec. 1, 1968, was issued expressly "to establish a breeding colony of armadillos with possible expansion into several inbred strains selected for small size or for genetic variants."

300 Armadillos Housed

The colony was originally established by purchase of some 30 armadillos from a Texas animal supplier. A fairly regular supply of the animals has since been received from local trappers.

There are presently more than 300 armadillos housed at Gulf South's Atchafalaya Basin Laboratory — possibly the largest armadillo research resource in the world. The grant, administered through DRR's Animal Resources Branch, has twice been renewed.

In October 1969, Gulf South received additional grant support from the HEW Center for Disease Control. Specifically, this grant

Dr. R. J. Gibbs Appointed Chief, General Research Support Branch, DRR

Dr. Robert J. Gibbs has been named chief of the General Research Support Branch, Division of Research Resources.

Dr. Gibbs will administer three programs of institutional support: General Research Support Grants, Biomedical Sciences Support Grants, and Health Sciences Advancement Awards.

He joined NIH in 1964 as a Grants Associate.



Dr. Gibbs

Since then he has served with the Office of the Director of NIH, most recently as Operations Analysis Officer.

Dr. Gibbs received his B.S. degree (1948), M.S. degree (1949), and Ph.D. degree in Chemistry (1952) from Fordham College.

From 1952 to 1956, he was a research associate and staff member at the University of Virginia Medical School and Massachusetts Institute of Technology respectively.



Dorothy E. Reese is congratulated by Dr. Kenneth M. Endicott, BHME Director, upon receiving the PHS Commendation Medal. Mrs. Reese, chief of the Nurse Education Facilities Program, Division of Nursing, was cited for "sustained high quality work performance . . . her unusual leadership in nurse training and education."

was made to develop the armadillo as a laboratory animal for the study of leprosy.

Thus far, one of the 44 armadillos inoculated has been positively identified as having lepromatous leprosy. The scientists feel that they are well on the way toward "developing a colony of armadillos with heightened susceptibility from the offsprings of lepromatous animals."

In addition to the leprosy study, the scientists say that the nine-banded armadillo can be especially valuable for work in such areas as organ transplants and birth defects, and for studies of multiple births.